

pointed out and adopted. A correction is also calculated and applied for another disturbance which still remains.

4. The chief experiment* is on interference phenomena, somewhat analogous to Newton's rings, by transmission. The resultant curve† depends upon about 200 electrometer readings.

5. The experiments conclude with two examples‡ of modifications of the secondary which produce *no* reflexion. These consisted respectively of thinner wires nearer together, and of thicker wires further apart, than the normal spacing. In each case the capacity was practically unaltered by the change in the wires; hence, as anticipated from the theory, no reflexion occurred.

6. The systematic comparison of theory and experiment, made§ near the end of the paper, does not exhibit an absolute quantitative agreement. Nevertheless, the two are so far concordant in all their general features as to be mutually confirmatory, and were approved by Professor Hertz|| as close approximations.

IV. "On Rocks and Minerals collected by Mr. W. M. Conway in the Karakoram-Himalayas." By T. G. BONNEY, D.Sc., F.R.S., Professor of Geology in University College, London, and Miss C. A. RAISIN, B.Sc. Received February 15, 1894.

(Abstract.)

During his journey in the Karakoram-Himalayas, Mr. W. M. Conway collected more than 300 specimens of rocks and minerals, generally rather small, which have been examined by the authors. They give a general summary of the results obtained, together with the details of chief interest.

Among the rocks are numerous specimens of granite and gneiss (the latter frequently pressure-modified granites), diorites, and hornblende schists, crystalline limestones and dolomites, calc-mica, micaceous, and other schists, ordinary limestones, sandstones with some conglomerates, argillites, slates, and phyllites, as well as some peculiar mottled felstones, probably devitrified acid lavas, from one locality (Golden Throne Peak). Of these rocks, the most interesting are a dark green serpentine, very like a variety common in the Alps, some hornblendites, piedmontite-schists, schists with a secondary brown mica, the crystals in one case being quite a quarter of an inch in diameter; a partially altered argillaceous rock, in which small

* Expt. V, arts. 42—48.

† Curve E, fig. 10.

‡ Expts. VIII and IX, arts. 51—62.

§ Arts. 63—77.

|| Under whose able guidance the work was carried out in Bonn, 1892-93.

crystals of a mineral somewhat resembling ottrelite have been developed; a conglomerate, the matrix of which is rather altered, as in the case of certain "Huronian" conglomerates, and a black-garnet micaceous schist, exactly resembling a rock which occurs in the Lepontine Alps at various localities from the neighbourhood of the Lukmanier Pass to the Binnen-Thal. Several of the schists resemble those which occur in the "upper schist" group (as defined by one of the authors) in the Alpine chain. Certain rather fine-grained speckled gneisses resemble a variety of that rock common in the Blair Athol district (Scotland).

Among the minerals or vein-specimens, the most interesting is one which presents some resemblance to jadeite. Microscopic examination shows it to consist of an aggregate of minute minerals, very difficult to distinguish, and chemical analysis suggests that the most probable are lime-garnet, jadeite, saussurite, or an allied mineral, and a pyroxene. As the specimen was collected from a moraine, its origin is conjectural, but that it was a vein-specimen seems most probable.

The minerals (among others) are actinolite, garnet, idocrase, noble serpentine, pyrite, and copper ores.

The geographical distribution of the rocks is described, and it is shown that in these mountains, as in the Alps, remnants of sedimentary rocks, probably of more than one geological era, are folded in among great masses of crystalline rocks, some, doubtless of igneous origin, but others metamorphosed sediments. It is evident that here, also, the rocks, as a rule, have been greatly modified by the effects of earth-movements.

V. "Contributions to the Chemistry of Chlorophyll. No. V."
By EDWARD SCHUNCK, F.R.S. Received February 15, 1894.

My previous papers were devoted to a description of various products derived from chlorophyll and their qualitative reactions. In the present communication I propose to give an account of some experiments made with a view to ascertain the composition of some of the derivatives of chlorophyll previously described.

Considerable difficulty was experienced in obtaining quantities of the various substances in a state sufficiently pure for analysis. This was especially the case with phyllocyanin and phylloxanthin, which, by the methods of purification employed so far, cannot be obtained entirely free from fatty matter. No attempt was therefore made to determine their composition. Of the compounds of phyllocyanin there is one, the phyllocyanin cupric acetate, which crystallises well, and has the appearance of a definite compound. Its composition was